

The Impact of Coronavirus (COVID-19) on New York Stock Exchange

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Abstract

The value of any stock market could change for several diverse reasons such as financial, economic and health. The value of the New York Stock Exchange market has reduced drastically in the first quarter of 2020 and expected to reduce further in the upcoming months, according to many economists (Ayittey et al., 2020; White, 2017). It will face a huge blow this year due to the appearance of the unexpected new virus (COVID-19). The New York Stock Exchange has fallen sharply for the first time in 23 years, causing a significant crash in consumer sentiment indexes, thereafter, decreasing the overall global stock market value (Financial Buzz, 2020). Such instances are rarely encountered, making investors to feel insecure and unsafe to make significant decisions about their investments. Together with these

uncertainties and fears, many industries were badly affected and many other industries benefited from this global health crisis (Ayittey et al., 2020). Through this research paper, an exploration of the effects of COVID-19 on New York Stock Exchange market are done with support from expert opinions.

Keywords: Coronavirus, epidemic, New York Stock Exchange, consumer sentiments.

1. Introduction

The stock market around the world differs. There are several factors that can either positively or negatively impact the value of stock markets, such factors are financial, economic or health (Tlemsani and Matthews, 2010). In rare cases, health factors have an impact on the stock markets; however, COVID-19 (coronavirus) has proved different on the New York Exchange Market (NYSE). Coronavirus appeared in China in the last quarter of 2019 and has negatively impacted the health of millions of Chinese, leading to an increased number of hospitalized patients and deaths as well (Larry, 2020). However, the virus did not only create a pandemic, but being contagious, it spreads so fast, causing a world epidemic where numerous cases of hospitalizations and deaths have been reported in many countries and cities around the globe, including New York City (Times, 2020).

While coexisting in China, coronavirus has negatively impacted China's economy and its stock exchange market. However, coronavirus has not only affected China but also the stock exchange market and the economy of other countries and cities as well. This paper is an attempt to describe some aspects that impacted the NYSE by the unexpected pandemic. It presents the uncertainties and behaviors of the market's participants and their impact on the overall market operation and value.

The main aim of this research paper is to investigate the impact of coronavirus on the NYSE by using the consumer sentiment index as a reference. It presents facts by data collection and analysis through primary and secondary online resources. The objective of the paper is to explain the importance of how the stock exchange market can be detrimentally impacted by health factor. Hence, it provides the reader with new perspective on the falling of a stock exchange market.

The scope of this research paper is confined to the impact on the stock exchange market in New York City. However, since the research is conducted in the Kingdom of Saudi Arabia, there is limitation of gathering primary facts and data collection. The research methodology is highly restricted to the data collection and analysis from trusted secondary resources through the internet. Both primary and secondary data analysis are included in this research paper. Primary data are managed to be included in this paper since a large number of NYSE's investors live in the Kingdom of Saudi Arabia.

2. Research Literature Review

The virus began in China at the end of 2019 and has continued to increase dramatically, causing several damages in many forms, including health and economic damages, which in turn has affected consumer sentiments and financial markets. According to analysts and capital economists, this virus will cost the world more than \$15 trillion if appropriate measures are not taken as soon as possible. Ayittey et al. (2020) discussed such opinions and demonstrated how the impact would be massive on financial markets; however, this research paper mainly focuses on the impact of this virus on consumer sentiment and therefore on NYSE.

In response to the disclosure of capital economist's opinion, this global event has become an essential economic crisis that has affected the interruption of trade and supply chains, leading

to a sharp drop in asset prices. So far, 2020 first quarter just passed, making traders to confront the financial crisis with little information and a high level of uncertainty. With the emergence of this financial crisis, there are industries that have been negatively affected due to the lockdown, suspension of trade and low prices of financial assets, for example, the aviation and tourism industries. On the contrary, there are industries that have not been affected and somehow increased their growth, for example, the pharmaceutical industries.

What investors are now facing is like what happened in 2008, when the economic recession affected their investment decisions and their awareness of risks level, thus, making investors in need of financial planners' interventions to elevate the situation and makeup for it (Kim and Hanna, 2016). Such instances in 2020 impacted the assets prices in NYSE, the way the market operates and therefore the overall market value. Follow-up to the outbreak, there are many journal articles, newspapers, scientific research and financial analysis issued by many individuals and institutions from various countries. Stock platforms including NYSE have become the dominant source of knowledge on the financial impact of the virus on industries in all fields by seeing the company's share price percentages. This approach leads to better knowledge in the financial field and economic growth, as it gives accurate details of the drop and rise of prices, which increases the accuracy of the corporate value assessment. Recent works are escalating and taking a further stage with the escalation of the crisis and argues about taking new approaches for a better and broader understanding of the global crisis between the virus, financial markets and the global economy.

3. Research Methodology

The paper's focal point is the impact made by coronavirus on consumer sentiment and therefore on the NYSE in a dependency. To obtain a better view on these effects, qualitative and quantitative research techniques through primary and secondary approaches were used. The primary data were collected by distributing questionnaire to get a better insight from consumer's perspective in terms of what is happening now with regards to the global epidemic and how they feel about it. Thereafter, these perceptions were supported with the qualitative data using reliable sources of newspapers, websites and journal articles.

At first, the questionnaire was distributed to individuals within the research's geographical area, within the Kingdom of Saudi Arabia, from February to June 2020, and ended up with 362 responses in total. The questionnaire had four main questions: how individuals' investment behaviors are impacted by the disease, what they think about it, their beliefs towards the situation and whether they have the willingness to buy stocks from NYSE at this time of uncertainty. These questions are to be used to analyze the topic at hand and thereafter support it by other expert opinions.

The second method which best suit the paper was through secondary data analysis. The secondary data were collected from various online sources including Google Scholars and electronic newspapers like The New York Times and Financial Times. All the data that were obtained and reviewed were between 2017 and beginning of 2020, which makes the paper to have an insight from previous instances and narrow it down to the data of today.

3.1 Data Collection

This research paper is based on a global economic crisis, making the authors build their argument on published opinions from financial analysts, newspapers, scientific papers, expert opinions and many reliable sources from all over the world. In addition to that, the paper showed the need for a mixed model approach and primary data intervention through distribution of questionnaires as was discussed earlier. The data of the questionnaire were collected using Google Docs account and ultimately showed the responses in pie charts with corresponding percentages. Furthermore, the data of the secondary sources were collected online, making the study to get access to information in an effective time frame.

4. Data Analysis

According to The New York Times website publication on the impacts of coronavirus on the USA on March 12, 2020, the New York exchange recorded a huge drop in its closing prices by 9.5%, which has never happened since 1987 (Phillips, 2020). However, President Trump’s speech the following day contained information assuring people about the availability of coronavirus tests across the country. As a result, the stock prices increased sharply during and after his speech.

According to the World Economic Forum publication on March 23, 2020, the market recorded a four-time breakage during March, which could be seen as a huge effect since it has not occurred again after the market crash in 1987. The breakage indicates that prices dropped by 7% from the closing prices. The graphs in Figures 1 and 2 illustrate the four breakages during March (Funakoshi and Hartman, 2020). The market had circuit breakdown, with hopes to stabilize the continual decrease in prices; its purpose is to provide investors time-off to calm down before making further decisions which in this case are negatively affecting the market. However, the market is still at level 1 of the circuit breakdown, which lasts for 15 min as it continues to only drop by 7%.

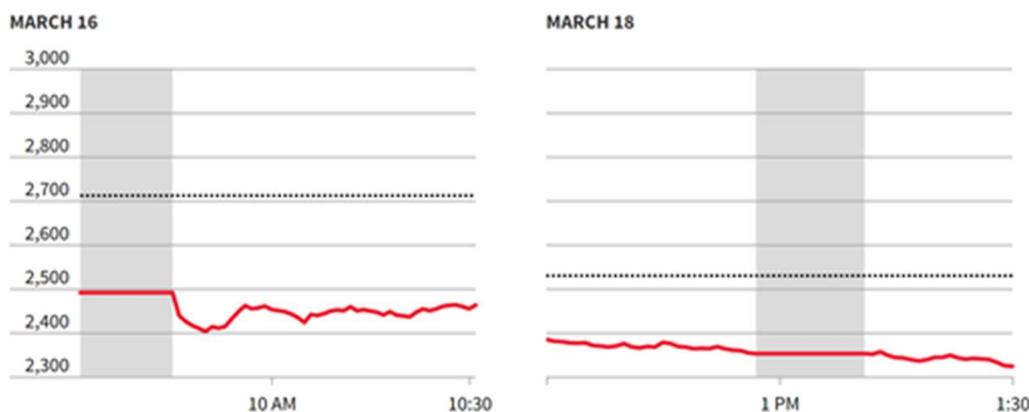


Figure 1. The Breakage on March 9 and 12

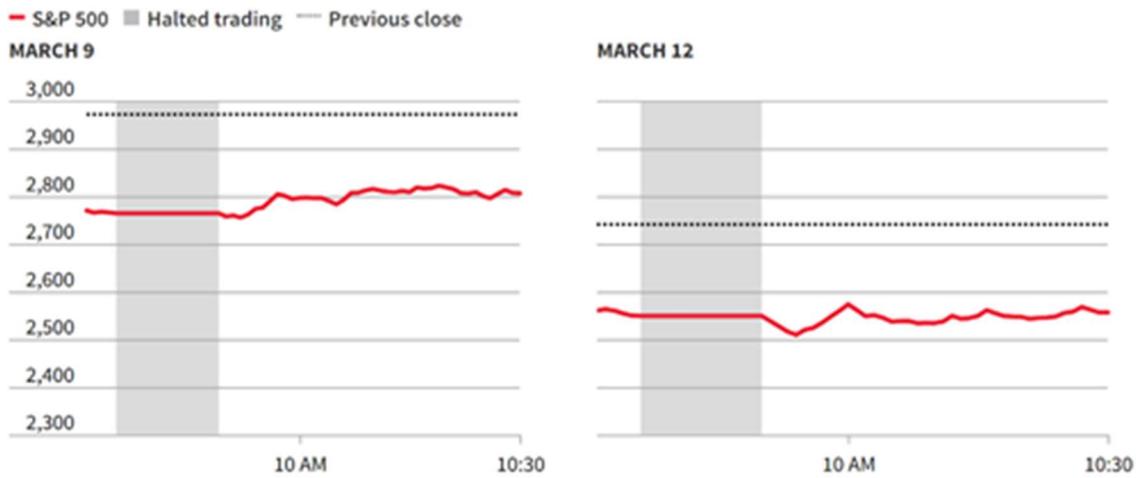


Figure 2. The Breakage on March 16 and 18

According to the Fortune website on March 22, 2020, the NYSE announced closing its physical floors on March 23, 2020. This was the first since the opening of the NYSE in 1871. This could lead to a huge impact on the performance of the market as it serves an important role in finding breakers and dealers, as well as trading securities. "The trading floor is an important part of not only our business but the overall financial marketplace," said John Tuttle, NYSE vice chairman and chief commercial officer (Sherman, 2020). According to the NYSE's website, there is a great decrease in stock prices since the beginning of the coronavirus crisis (Figure 3).

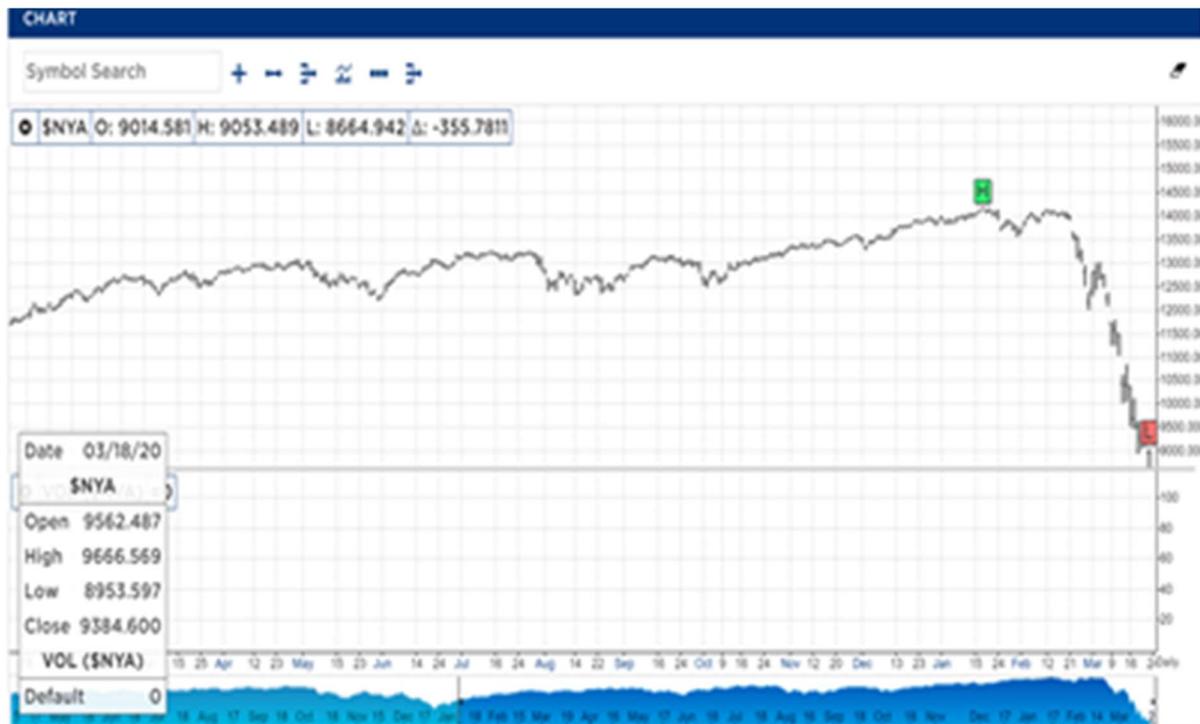


Figure 3. *Decrease in stock prices on March 24, 2020*

The sentiment approach states that stock prices change depending on investor's sentiment, as such, they must be sure of the positive returns of their investment before they could decide. Relatively, with COVID-19, many investors have low sentiments regarding investing as the virus has globally spread causing damages in the supply chain. According to the study findings, President Trump's speech on March 12 clarified the impact degree of investor's sentiments regarding investing, which in return affected the prices in the market index. As investors were to some extent, assured of the possible resolution of the current situation, their sentiment became positive leading to the increase in the prices after the speech. In addition, as the NYSE trading floors were closed, consequently, it reduced the consumer sentiments as fear of uncertain returns or situations of the economy spread among investors. Together with uncertainties, consumers and investors faced a significant blow. The New York Stock Exchange has fallen sharply for the first time in 23 years and thereafter stopped trading for 15 min long (Financial Buzz, 2020). As a result, investors were anxious and distrustful about their financial situation, thereafter, crashing their confidence level. In addition, investors encountered a strong hit in accordance with the sharp fall of consumer's sentiments as they started to worry about their investment decisions as well (Kim and Hanna, 2016).

Based on the results of the survey, 82.2% of the respondents are hesitant to buy any stock from NYSE, indicating that the uncertainty of the stock market in the current state is caused by the consumer's sentiments in which investors are in continuous doubts. However, in another question that focused on customers' investment behavior after COVID-19, 79.2% of the participants are unwilling to invest presently. This is due to their uncertainty which occurred in a similar situation in the 2008 financial crisis; as such, investor's uncertainty is expected to take time to resolve, of course, with the help of government incentives to help boost stock

prices, causing higher returns to attract investors. Also, the refusal of participation in any investment even after the resolution of pandemic is due to the decrease in the overall economic levels as many investors have lost their employment contract.

5. Findings

Based on the data collection regarding the companies' stock market return and standard deviation from 2019 to 2020, it is clear that COVID-19 has negatively impacted the New York Stock Market. The data collected included major companies in different industries. As per the data, before COVID-19, the average return was increasing when standard deviation (SD) was increasing. In the stock market, standard deviation refers to the risk, and the concept of stock is high risk equals high return. However, after COVID-19, the average returns did not increase proportionally with the SD, whereas it was decreased and reached below 0%, and hence, investors were losing their money. The reduction in the average return has decreased customers' sentiment and attraction to the NYSE, and hence many stopped buying from the stock market.

These impacts have resulted in NYSE shares' prices fall, thus, almost all industries were affected to some extent depending on the services or goods provided by these sectors. Therefore, companies like Walmart, Johnson & Johnson and Dettol were not majorly impacted as their average return did not reach below zero. The reason is that customers are still in need of these health care products, especially with the COVID-19 issue. Thus, despite the whole situation, these companies still generate revenues due to their importance. Hence, to some extent, it matches their risks which reduces investors' uncertainty about these shares. In contrast others like Ford and Walt Disney companies were majorly impacted as people might not need these services presently.

Before COVID-19

Stock Company Name	Average Return	Variance	SD
Health Care			
National Health Investors	-0.01%	8.90E-05	0.94%
Johnson & Johnson	0.16%	0.00021	1.45%
Reckitt Benckiser (Dettol)	0.07%	0.000139	1.18%
Consumer Services			
Nike	0.15%	9.38E-05	0.97%
The Walt Disney Company	0.39%	0.000241	1.55%
Walmart Inc	0.03%	5.52E-05	0.74%
Technology			
Twilio Inc	-0.14%	0.000627	2.50%
Shopify Inc	0.42%	0.000876	2.96%
Oracle Corporation	-0.01%	0.000105	1.02%
Automobile			
Toyota Motor Corporation	0.09%	4.20E-05	0.65%
Ferrari	0.28%	2.62E-04	1.62%

Ford Motor Company	0.10%	0.000294	1.72%
Transportation			
Canadian Pacific Railway Limited	0.27%	0.000116	1.08%
China Eastern Airlines Corporation	0.22%	0.000454	2.13%
United Parcel Service Inc	0.11%	0.000153	1.24%

After COVID-19

Stock Company Name	Average Return	Variance	SD
Health Care			
National Health Investors	-0.73%	0.004893	6.99%
Johnson & Johnson	0.02%	0.000758	2.75%
Reckitt Benckiser (Dettol)	0.00%	0.000699	2.65%
Consumer Services			
Nike	-0.30%	0.001557	3.95%
The Walt Disney Company	-0.48%	0.0014	3.74%
Walmart Inc	0.05%	0.000719	2.68%
Technology			
Twilio Inc	-0.25%	0.001675	4.09%
Shopify Inc	0.17%	0.002585	5.08%
Oracle Corporation	-0.03%	0.001949	4.41%
Automobile			
Toyota Motor Corporation	-0.28%	0.000685	2.62%
Ferrari	0.05%	0.0005	2.30%
Ford Motor Company	-0.78%	0.00178	4.22%
Transportation			
Canadian Pacific Railway Limited	-0.23%	0.002069	4.55%
China Eastern Airlines Corporation	-0.81%	0.001392	3.73%
United Parcel Service Inc	-0.27%	0.000869	2.95%

Figure 4. A summary of the stock market average return and standard deviation of different companies before and after corona on the New York stock market.

6. Recommendation

Investors are increasingly becoming hesitant to purchase stocks because of the fears and uncertainties associated with this pandemic. Unfortunately, stock markets cannot make any improvements until this pandemic is contained. Therefore, to reduce the impact of this pandemic on the stock market and other economic sectors, there is need for all sectors, stakeholders, citizens and organizations to come together and collaborate in containing this pandemic.

Investors also need to protect their investments by considering the following options. First, investors can always check their asset allocation during this period to ensure that it aligns with their risk tolerance and adequate for the time horizon or age group. Secondly, investors might also consider diversifying their investing strategies by focusing on different areas of markets. For instance, they might consider sectors that are not seriously affected by the pandemic (for example, WALMART, Johnson & Johnson and Dettol). Thirdly, investors can consider rebalancing their portfolios to ensure that the equity allocation aligns with their goals, and their portfolio is balanced. Furthermore, coronavirus has brought unexpected disruptions to investors' financial goals and plans. Therefore, investors need to consider meeting with financial experts who can provide them with valuable advice during this stressful period. This is because such situations can adversely affect their capacity to make right and sound financial decisions.

7. Conclusion

To the best of the authors' knowledge, the impact of health factors on the performance of stock exchange markets is rarely studied. However, the coronavirus pandemic has significantly affected almost all stock exchange markets across the globe, including the NYSE. According to the findings of this research, the reporting of a coronavirus outbreak in the US resulted in a significant drop in closing prices by 9.5% in the NYSE, a drop that has never been reported since 1987.

The coronavirus pandemic has also led to a huge decrease in stock prices. It has increased fears and uncertainties among consumers and investors, hence, making more people reluctant to buy any stock from NYSE. This is further worsened by the fact that many investors have lost their job. With the increasing number of COVID-19 cases reported every day, these fears have continued to increase since investors do not know when this pandemic will end. Almost all industries are negatively affected, except a few such as WALMART because of increased online shopping to reduce the infection rates and Johnson & Johnson and Dettol, because the demand for their sanitization products has increased during this pandemic.

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